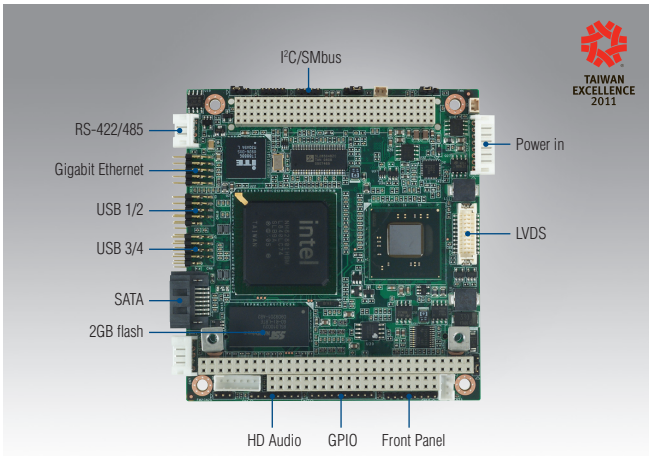
PCM-3362

Intel® Atom™ N450 PC/104-Plus SBC, CRT, LVDS, LAN, USB, COM, SATA, On-board Flash



VxWorks® Windows Embedded QNX

CE FCC

Features

- Intel® Atom™ N450 1.66 GHz Processor and DDR2 667 MHz SDRAM up to 2 GB
- Supports extended temperature -40 ~ 85° C
- Standard 96 x 90 mm dimension and PC/104-Plus expansion connector
- On board 2 GB flash (4 GB optional)
- Supports embedded software APIs and Utilities

Software APIs: Watchdog, I²C, Brightness, H/W Monitor, GPIO, Backlight On/Off

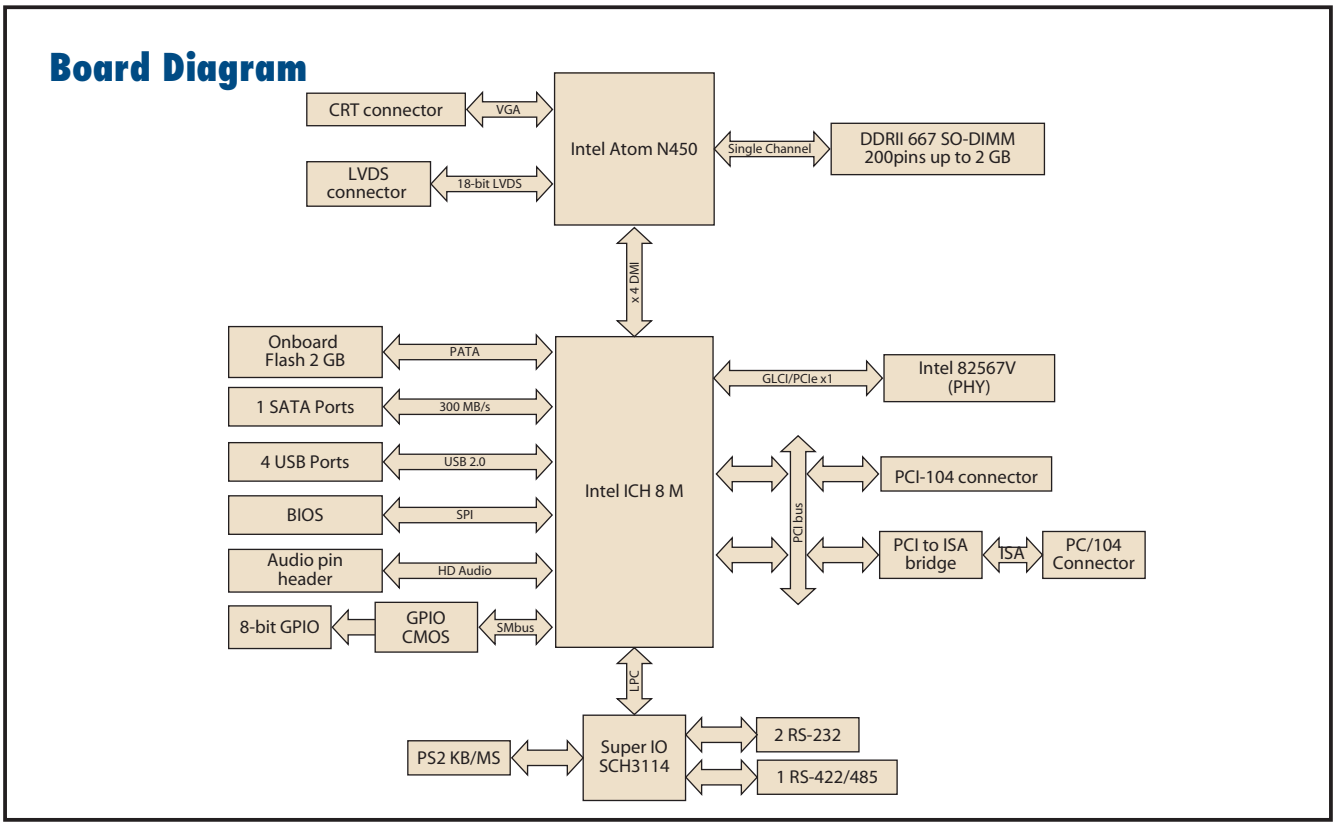
Utilities: Monitoring, eSOS, Embedded Security ID

Specifications

Processor System	CPU	Intel Atom N450 1.66 GHz
	Front Side Bus	667 MHz
	Frequency	1.66 GHz
	L2 Cache	512 KB
	System Chipset	Intel Atom N450 + ICH8M
	BIOS	AMI 16 Mbit
Memory	Technology	DDR2 667 MHz
	Max. Capacity	2 GB
	Socket	1 x 200-pin SO-DIMM
Display	Chipset	Intel Atom N450 1.66 GHz
	VRAM	Shared system memory up to 224 MB
	Graphic Engine	Intel Gen 3.5 graphic core, DX9 compliant, MPEG2 Hardware Acceleration
	LVDS	Singe channel 18-bit single channel LVDS up to WXGA 1366 x 768
	CRT	Supports up to SXGA 1400 x 1060 @ 60 Hz
	Dual Display	CRT+LVDS
Ethernet	Speed	10/100/1000 Mbps
	Controller	ICH8M + Intel 82567V (PHY), support Wake-on-LAN
	Connector	Pin Header
Watchdog Timer		Output System Reset Programmable counter from 1 ~ 255 minutes/ seconds
Storage	SATA	1 SATAII, up to 3.0 Gb/s (300 MB/s)
	On board Flash	2 GB (Up to 4 GB)
Internal I/O	USB	4 x USB 2.0
	Serial	2 RS-232 from COM1/2, 1 RS-232/422/485 from COM3 (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV)
	Keyboard/Mouse	1
	GPIO	8-bit general purpose input/output
	I²C	1
Expansion	PC/104-Plus slot	1
Power	Power Type	AT/ATX
	Power Supply Voltage	5V only to boot up (12 V is optional for LCD inverter and add-on card)
	Power Consumption (Typical)	+5 V @ 2 A, +12 V @ 5mA
	Power Consumption (Max, test in HCT)	+5 V @ 2.37 A, +12 V @ 7mA
	Battery	Lithium 3 V / 210 mAH
	Power Management	ACPI/ APM 1.2
Environment	Operation	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)
	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
	Weight	0.162 kg (0.357 lb) (with heat-sink)

All product specifications are subject to change without notice

Board Diagram



Ordering Information

Part No.	CPU	Memory	On board flash	CRT	LVDS	Gigabit Ethernet	USB 2.0	RS-232	RS-422/485	Thermal Solution	Operating Temp.
PCM-3362N-S6A1E	Atom N450	SO-SIMM	2 GB	Yes	18-bit	1	4	2	1	Passive	0 ~ 60° C
PCM-3362N-S6F4A1E	Atom N450	SO-SIMM	4 GB	Yes	18-bit	1	4	2	1	Passive	0 ~ 60° C
PCM-3362Z-1GS6A1E	Atom N450	1 GB bundle	2 GB	Yes	18-bit	1	4	2	1	Passive	-20 ~ 80° C
PCM-3362Z2-1GS6A1E	Atom N450	1 GB bundle	2 GB	Yes	18-bit	1	4	2	1	Passive	-40 ~ 85° C

Note: Wide temp version has been bundled with extended temperature grade memory module

Packing List

Part No.	Description	Quantity
	PCM-3362 SBC	
	Startup Manual	
	Utility CD	
1700000898	VGA cable D-SUB 15P(F)/12P-1.25 mm15 cm	1
1700003491	AT power cable 1 x 8P-2.0/B4P-5.08 x 2 15 cm	1
1700060202	Cable 6P-6P-6P PS/2 KB & Mouse 20 cm	1
1703040157	RS-422/485 W/D-SUB COM 4P 15 cm	1
1703060053	PS2 Cable 6P (MINI-DIN)-6P (Wafer 2.0 mm) 6 cm	1
1700002332	ATX power cable 20P-13P/8P/3P/3P 13 cm	1
1703100260	USB cable 2port 2.0 mm pitch w/ bracket 26 cm	1
1700071000	SATA data cable 7p 100 cm	1
1703150102	SATA power cable B4P-5.08/SATA 15P 10 cm	1
1701200220	RS-232 x 2 ports 2.0 mm 22 cm	1
1700017863	LAN cable RJ45/2 x 5P-2.0 15 cm	1
9660104000	PC/104 screw and copper post package	1
1960045487T001	Heatsink for PCM-3362 (79.66 x 77.97 x 12.22 mm)	1
1960045487T001	Heatsink for PCM-3362Z series only (79.66 x 77.97 x 17.22 mm)	1

Optional Accessories

Part No.	Description
1960047106T001	Heat spreader (79.66 x 77.98 x 10.32 mm) of PCM-3362
1653130421	PCI-104 connector 120pin (Long pin)
165313222B	PC/104 connector 64pin (Long pin)
165312022B	PC/104 connector 40pin (Long pin)
PCA-AUDIO-HDA1E	Audio Extension module with bracket
1700018427	Audio cable connecting PCM-3362 and PCA-AUDIO-HDA1E

Embedded OS/API

Embedded OS/API	Part No.	Description
WinCE 6.0	2070009692	WINCE 6.0 Pro for PCM-3362 V1.3 ENG
Win XPE	2070009030	XPE WES2009 Luna Pier V4.0 ENG
	2070009031	XPE WES2009 Luna Pier V4.0 MUI24
QNX		QNX 6.5
Linux		Ubuntu 10.04
VxWorks		V6.8
Software API	205E362000	SUSI 3.0 SW API for PCM-3362 B:20091015 XP